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May 22, 2017

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: NOTICE OF EX PARTE
   CG Docket No. 17-59: *Advancing Methods to Target and Eliminate Unlawful Robocalls.*

Ms. Dortch:

On May 18, 2017, Mike Keegan, CEO; David Kaemmer, Vice President of Sales; and Sean Kent, Director of Project Management, all with Transaction Network Services, Inc. ("TNS")[1] and Jason Torrey, General Manager, Cequint, Inc. ("Cequint")[2] met with Patrick Webre, Acting Bureau Chief, Consumer and Governmental Affairs Bureau ("CGB"), and Mark Stone, Deputy Bureau Chief; Kurt Schroeder, Chief, Consumer Policy Division; John B. Adams, Deputy Chief, Consumer Policy Division; and Jerusha Burnett, Legal Advisor, Consumer Policy Division; all also of CGB. Elizabeth Barket, Law & Regulatory Counsel, and Rebecca Murphy Thompson, EVP & General Counsel, both with Competitive Carriers Association ("CCA"),[3] attended as well.

TNS expressed support for the Commission's Notice of Proposed Rulemaking and Notice of Inquiry.[4] These items are important steps toward updating the Commission's rules surrounding robocalls, providing relief and certainty to operators who wish to offer their customers cutting-edge solutions for unwanted and fraudulent calls. TNS hopes to inform the

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[1] TNS is a leading global provider of data communications and interoperability solutions. TNS offers a broad range of network connectivity and innovative value-added services which enable transactions and the exchange of information in diverse industries such as telecommunications, payment processing, and financial services markets.

[2] Cequint, which is a wholly-owned subsidiary of TNS, has pioneered the development of innovative, market-leading mobile Enhanced Caller ID and Call Management solutions.

[3] CCA is the nation's leading association for competitive wireless providers and stakeholders across the United States. CCA's membership includes nearly 100 competitive wireless providers ranging from small, rural carriers serving fewer than 5,000 customers to regional and national providers serving millions of customers. CCA also represents approximately 200 associate members including vendors and suppliers that provide products and services throughout the mobile communications supply chain.
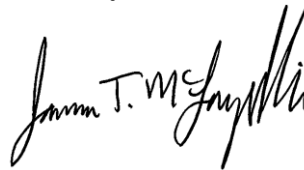
[4] *Advancing Methods to Target and Eliminate Unlawful Robocalls*, Notice of Proposed Rulemaking and Notice of Inquiry, CG Docket No. 17-59, FCC 17-24 (CBG 2017) ("NPRM").

CGB's Notice of Inquiry regarding the need for objective methods or standards to identify illegal calls[5] and a safe harbor for blocking calls identified by objective standards[6] that nonetheless protects against blocking legitimate callers.[7]

TNS discussed its Call Guardian solution for identifying and protecting consumers from robocallers, as described in the attached slides. Call Guardian leverages TNS' unique position as a telecom services routing and signaling provider to more than 400 wireless and wireline operators to identify unwanted robocalls and other bad actors in real time through big data analysis of tens of billions call events every month. Call Guardian's advanced algorithm assigns reputational scores for more than 600 million unique telephone numbers – including wireless, wireline, and VoIP call numbers from both domestic and international sources – and adjusts those scores in real time depending on the frequency, patterns, source, and other attributes. Call Guardian does not, however, permanently relegate a customer with a spoofed number to a "black list;" when a negative pattern stops, the reputational score is restored and again functions normally. TNS offers Call Guardian services directly to wireline operators and to wireless operators through Cequint as a part of its caller identification and call management services portfolio, deployed in partnership with many mobile network operators. In addition, TNS and CCA discussed how this solution could be deployed ubiquitously with the use of CCA's LTE hub, powered by TNS.

This *ex parte* notification is being filed electronically with your office pursuant to Section 1.1206 of the Commission's Rules. Please do not hesitate to contact me with any questions or concerns.

Sincerely,

James T. McLaughlin
EVP, General Counsel & Secretary

attachment

cc (via email): Patrick Webre
Mark Stone
John B. Adams
Kurt Schroeder
Jerusha Burnett

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[5] *See id.* ¶ 30.

[6] *See id.* ¶¶ 34-36.

[7] *See id.* ¶¶ 37-40.

TNS – A Global Communications Company

Transaction
Network Services

Payment Services

- Leading global provider of payment services
- **Powers millions of ATM's and POS devices**
- Level 1 PCI DSS certified backbone network
- **Transports more than 24 billion payment transactions annually**

Telecom Services

- Largest independent SS7 network **delivering over one hundred billion messages monthly**
- First ENUM registry for IP migration and mobile messaging **delivering over one billion messages daily**
- **Operates CCA's LTE hub**
- Over 400 carrier customers
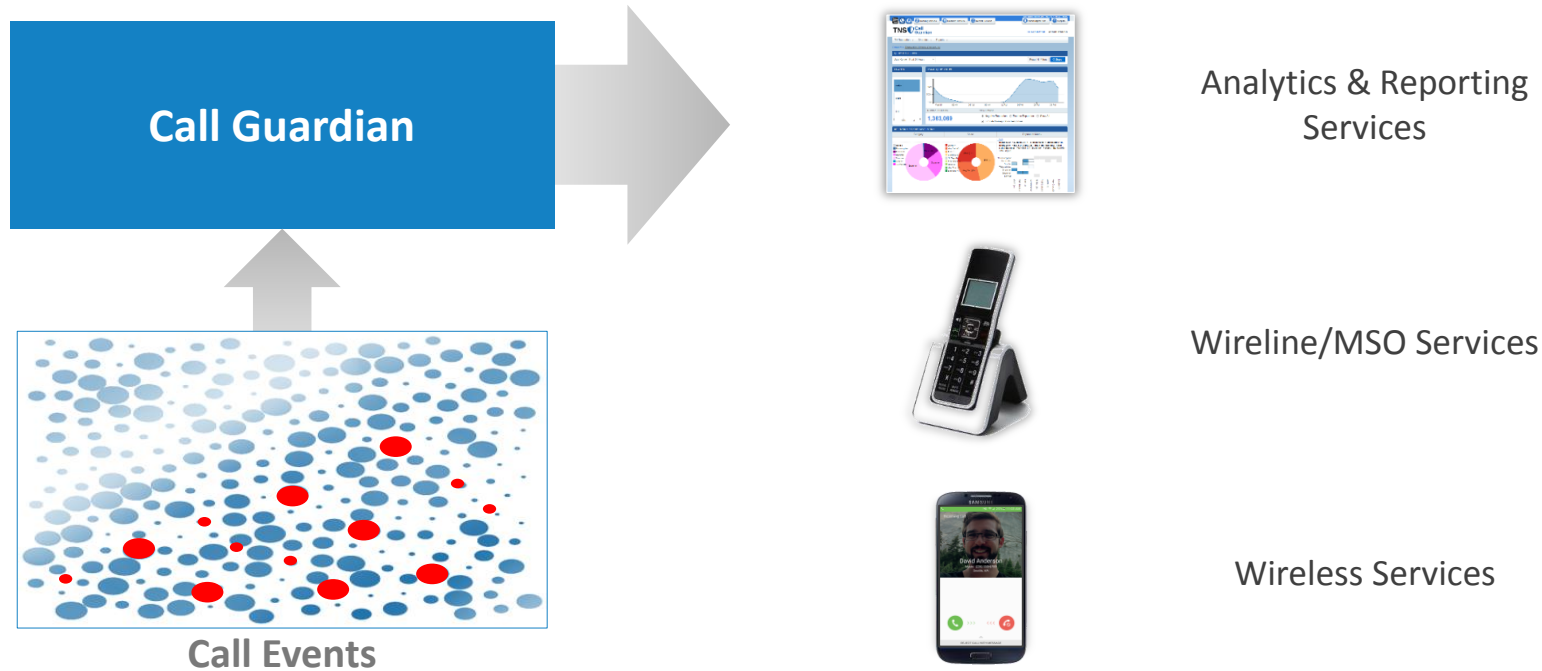- **Cequint** mobile applications

Financial Services

- Low latency secure trading network services
- **Connects over 700 financial institutions worldwide**
- **Powering more than 2,000 end points** in the financial community

Transaction Network Services enables businesses, people, and markets to connect, transact, and trade with each other securely and reliably.

Call Guardian

Introducing TNS Call Guardian

Call Guardian

Analytics & Reporting Services

Wireline/MSO Services

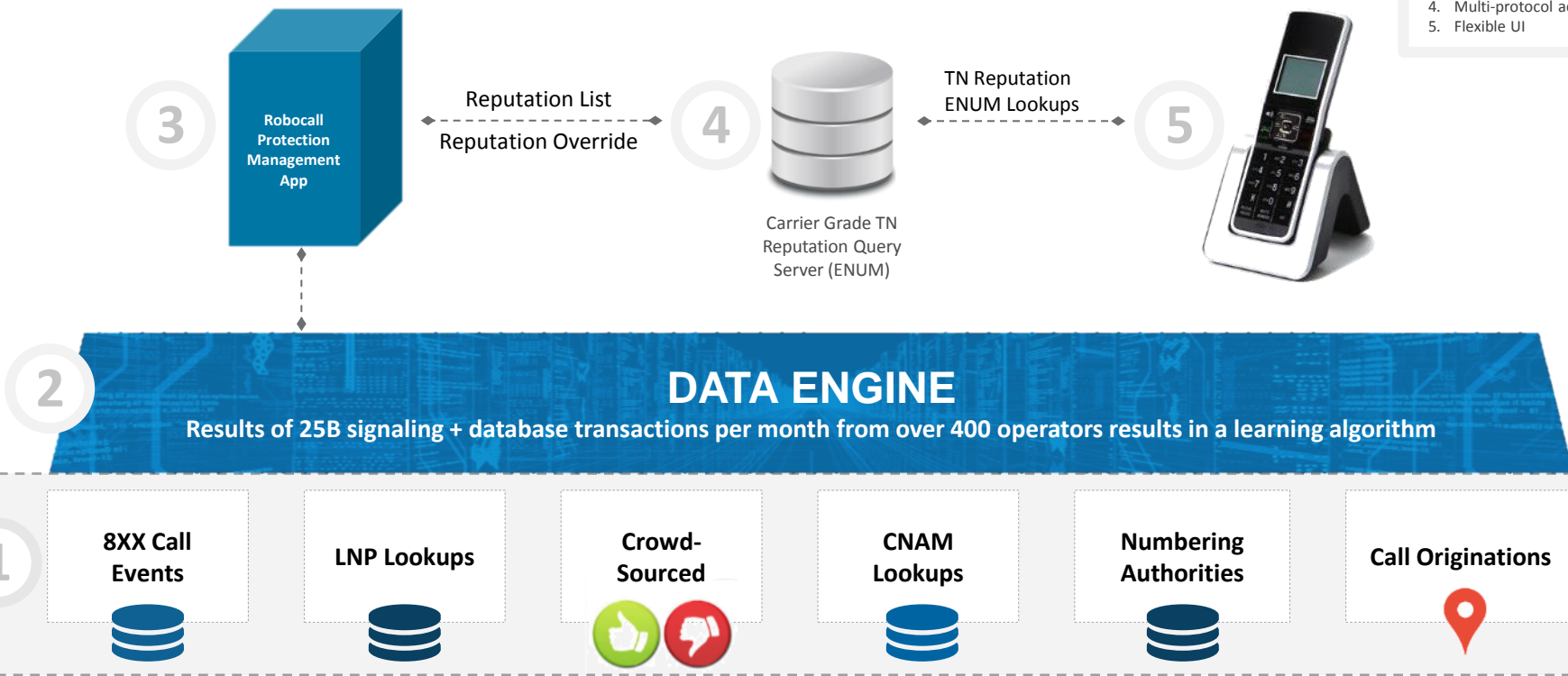Wireless Services

Call Events

TNS Call Guardian is a big data-driven, real-time telephone number reputation and delivery system that analyzes call events in order to identify abusive robocallers, including Caller ID spoofing.

Key Differentiators & Attributes

- **Determination of caller reputation** based on real-time analysis of call events across over 400 operators and over 600M unique telephone numbers
- **Real-time scoring** detects problem numbers, including those engaged in Caller ID spoofing, as they occur
- **Outperform competitive offerings** in identifying negative robocallers by wide margin (>90% catch rate)
- **No dependencies** on honeypots or simultaneous ringing
- **No infrastructure investment** required by the operator
- **Protocol-agnostic** with support options for IP as well as legacy TDM networks
- **Flexible deployment options** for wireless and wireline operators via network and/or device integrations, accessible via carrier-grade ENUM, AIN / TCAP, or SIP interfaces
- **Carrier provided service** not offered as an OTT solution direct to consumer
- **Future Proof** serves as analytics server in STIR/SHAKEN architecture

By ingesting tens of billions of call events per month, TNS Call Guardian delivers unparalleled real-time visibility into the reputation of telephone numbers

Big Data Solution, Real-Time Scoring

1. Real-time transactions
2. Big Data infrastructure
3. Algorithm
4. Multi-protocol accessible
5. Flexible UI

3 Robocall Protection Management App

Reputation List
Reputation Override

4 Carrier Grade TN Reputation Query Server (ENUM)

TN Reputation ENUM Lookups

5

2 DATA ENGINE

Results of 25B signaling + database transactions per month from over 400 operators results in a learning algorithm

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| 8XX Call Events | LNP Lookups | Crowd-Sourced | CNAM Lookups | Numbering Authorities | Call Originations |

Data Operators Can Trust

TNS examines calling behavior to detect spoofing as it occurs.

Within our negatively-scored set of numbers, just over **30% are engaged in Caller ID spoofing, the heart of the issue.**

By leveraging big data analytics of **hundreds of billions data events per year across 400+ operators, TNS is able to assess the reputation of more than 600 million unique U.S. telephone numbers** and detect spoofers, as well as other types of negative robocallers, with a high degree of accuracy.

When the negative calling pattern stops, numbers belonging to victims of Caller ID spoofing have their reputation returned to normal based on data, not guesswork, which is not possible with blacklist solutions. This addresses concerns shared by enterprise with the FTC.

Spoofer (IRS scam)

Benign Robocaller (Health Insurance Company)
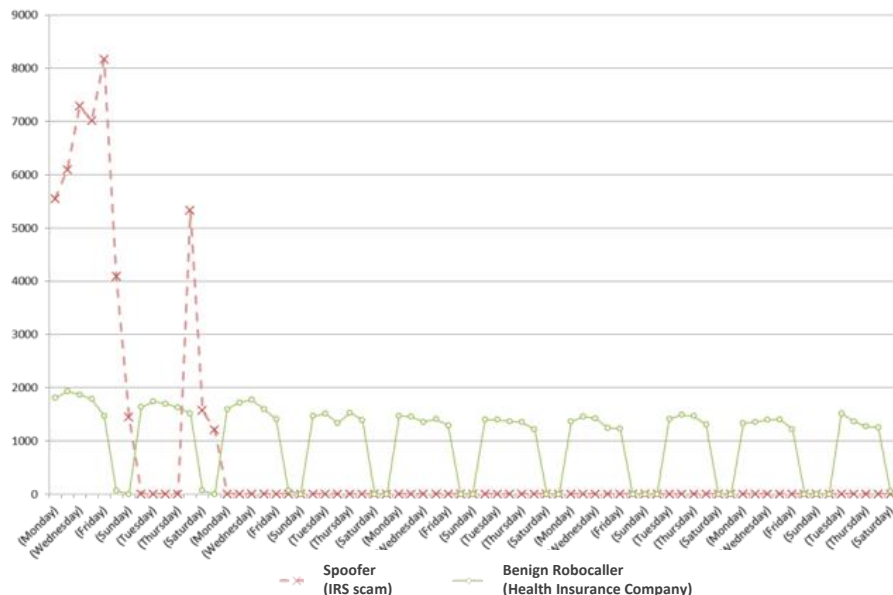
Demonstrations:
Cequint Mobile Application
Call Guardian Portal

Thank You